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Monthly e-mail from Tim Congdon and John Petley – 28th July, 2020

Global money round-up in summer 2020

Fears of a second Covid-19 wave are holding back equity markets at present because lockdowns may return in some countries or localities, but two points are clear. First, the case for more lockdowns has to be argued. In Sweden, which never had a proper lockdown, deaths due to the coronavirus have fallen sharply, from over 100 a day at the peak to a recent average of under 10 a day. Second, **a vaccine – or a number of vaccines – is/are likely to be widely available by mid-2021, so that life should return to normal, in a medical sense, by the end of next year.**

But the monetary position is far from normal today, with excess money balances likely to persist for several quarters. Our analyses have reported extraordinary money growth upturns in major economies since February, with banking systems – particularly central banks – providing finance to governments that have widened budget deficits by several per cent of GDP. According to the April issue of the International Monetary Fund's *Fiscal Monitor*, the combined general government financial deficits of the world's advanced countries will rise from 3.0% of GDP in 2019 to 10.7% in 2020, and will remain large in 2021. Thus, in the USA the GGFD – 5.8% of GDP in 2019 – was expected by the IMF in April to be 15.4% of GDP in 2020 and still 8.6% of GDP in 2021. **A reasonable view is that reliance on banking systems to finance budget deficits will keep money growth positive, at annual rates at least in the mid- single digits %, over the next year or two. The evidence is universal and compelling, that agents' money-holding preferences are stable in the long run. Whereas in spring and summer 2020 ratios of money to GDP (i.e., the inverse of the velocity of circulation) have climbed dramatically, in coming quarters they will drop sharply, closer to long-run averages. The rates of increase of nominal GDP and the price level will soar, probably after or in association with asset price inflation.**

Money trends in mid-2020 in the main countries/jurisdictions

The Institute of International Monetary Research focuses on the relationship between trends in the growth of the quantity of money, broadly-defined, and macroeconomic outcomes. The Covid-19 coronavirus outbreak continues to dominate the news, and demand and output have been influenced to an extraordinary extent by medical news rather than macroeconomic policy. The main points argued in the Institute's recent research are that

- the policy response to Covid-19 has resulted in marked accelerations in money growth in many nations, particularly in the world's leading economy, that of the USA,
- given an eventual return to normal levels of the velocity of circulation, reflecting the long-run stability of households' and companies' money-holding preferences (for which the evidence is overwhelming), the accelerations in money growth will be followed by similar accelerations in the growth of nominal national income, and
- given that the world's underlying productive capacity has not been helped by Covid-19 (and may indeed to a minor degree have been impaired by it), much higher growth of nominal national income must lead to faster inflation than has been standard in the last 20/30 years.

It is very clear that our current message is a minority position. Mainstream analyses – from central banks and the supranational agencies – are New Keynesian in doctrinal affiliation. They highlight the relationship between supply/demand balances in labour and product markets, on the one hand, and wage and price determination, on the other. The job losses due to the coronavirus-related lockdowns have, in their view, created a potentially chronic situation of high unemployment which will restrain wage increases and price rises for several years. Richard Clarida, vice-chairman of the Federal Reserve, said in remarks to the New York Association for Business Economists on 21st May that, “my projection is for the Covid-19 shock to be disinflationary, not inflationary”. Not surprisingly perhaps, the *Minutes* of the Federal Open Market Committee meeting on 9th and 10th June 2020 contained no reference to any money aggregate and therefore ignored the fastest growth of the quantity of money in the USA's peacetime history. The discussion noted that, “The [forward-looking] simulations [from the Fed's research staff] suggested that the Committee would have to maintain highly accommodative financial conditions for many years to quicken meaningfully the recovery from the current severe downturn.” Notice the phrase “for many years”.

Given that our message reflects a minority position, it seems to have little credibility in financial markets. If investors believed the traditional and well-established theory that rapid money growth causes high inflation, holders of government bonds would require yields high enough to protect them against prospective losses from money's declining value. But in the USA the 10-year breakeven inflation rate (i.e., that implied by the yield differential between conventional 10-year Treasury bonds and the inflation-protected Treasury 10-year bonds) is only 1½ per cent at present. (Admittedly, it has increased from a low of 0.63% in late March.) With real yields on Treasury inflation-protected securities (TIPS) in negative territory, it is obvious that – even with yields stable at current levels – three years of only moderate inflation (of about 3% a year) would result in a real-terms loss on conventional 10-year US Treasuries of over 10%. If yields were to rise, the losses would be more serious. Only a year ago, before Covid-19 hit and money growth took off, yields on US 10-year Treasuries were almost 2%, compared with the current figure of about 0.6%.

Market expectations of inflation, and their implications for bond markets, are of massive importance for the trajectory of public debt. In an April 2019 article in the *American Economic Review* Olivier Blanchard argued that, because of virtually zero interest rates, “public debt may have no fiscal cost”.

As Blanchard is an influential figure who reflects the consensus of leading economic policy-makers, his talk may be part of the explanation for the widespread indifference to the egregious fiscal and monetary spree in the world's advanced economies in the last four/five months. It is perhaps worth pointing out that 20 years ago the real yields on TIPS exceeded 4%. If bond yields were to return to levels that anticipate future inflation, the cost of servicing public debts could rise sharply. Obviously, if the real yields on index-linked government bonds were to rise to (say) an historically normal 3%, and inflation were to reach 5% and stay at that figure for some years, yields on conventional bonds would be 8%. The IMF envisages, in its April *Fiscal Monitor*, that the USA's ratio of gross public debt to GDP will reach 131.1% in 2020. That is easy to service if the 10-year yield is 0.6%. But what would happen if the 10-year yield were (say) 7.6%? Plainly, we would then have to think in terms of the debt interest bill running up to 10% of GDP. If that seems hysterical, let it be recalled that 10-year US Treasury yields were at 7.6% or above for most of the 20 years from spring 1974 and indeed peaked in late 1981 at almost 16%.

We must again remind readers that the rates of increase of money and nominal national income are related over the medium and long runs, while changes in real money growth affect asset prices and balance-sheet strength, and hence every economy's cyclical path. The table below summarizes money growth rates in the major nations. Everywhere money growth is running at higher rates than at the start of 2020, but a salient feature is that the money growth upturns have been more pronounced in the advanced nations than in the two developing countries (China and India) that the Institute monitors in these monthly notes.

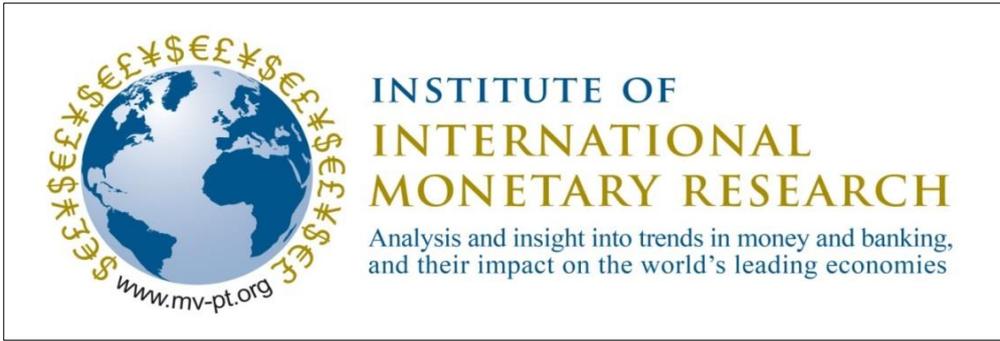
Name of country/ jurisdiction	Share of world output		Growth rate of broad money		Comment
	In purchasing-power parity terms, %	In current prices and exchange rates, %	In last three months at annualised rate, %	In last twelve months, %	
USA	15.1	23.3	71.4	26.7	Very strong money growth, now peaking, partly due to monetary financing of huge budget deficit.
China	18.7	16.1	10.8	11.4	Money growth rising slightly, as government favours stronger post-epidemic recovery.
Eurozone	10.6	16.4	21.0	8.9	Money growth accelerating, with ECB asset purchases and some money financing of deficits.
Japan	4.2	5.9	15.7	5.9	Doubling of BOJ asset purchases leading to faster money growth.
India	7.7	3.3	15.5	12.1	Credit and money growth steady at high rates, amid social tension
UK	2.2	3.4	31.8	11.3	Money growth rising before lockdown-related measures, now accelerating sharply.

Japan – like the USA – may prove another fascinating test of different theories. Over the last 30 years it has had *both* the lowest rate of broad money growth in the world *and* the lowest rate of increase in nominal GDP. (For years the Bank of Japan has declared a 2% inflation target, and inflation has remained stubbornly beneath it. If 5% plus money growth [at an annual rate] now emerges, inflation of above 2% would be expected by a quantity-theory economist.) On 16th March the Bank of Japan announced that it would buy “aggressively” exchange-traded funds at an annual pace of around ¥12 trillion (about \$110b.), double the amount previously planned. The budget deficit has also widened dramatically and – as elsewhere – will be financed to some extent from banks. An upturn in money growth has occurred, with the three-month annualised rate of increase to May reaching 15.7%, which is an extraordinary figure by Japanese standards. If Japan in the next few quarters hits and exceeds its 2% inflation target, this might persuade sceptics that inflation is indeed a monetary phenomenon and not a by-product of “national psychology” or some such nonsense. It might also persuade the far too numerous monetary economists who focus on the base and narrow money that an all-inclusive, broadly-defined aggregate is the one to watch.

Last month I suggested that – even as higher inflation does become evident, perhaps more in 2021 than in 2020, and more in 2022 than in 2021 – central bankers will rely on their non-monetary theories of inflation to dispute, or even to deny altogether, that the cause of inflation is unduly rapid growth of the quantity of money. The vast majority of today’s central bankers are allergic to money and money aggregates, but it remains true that changes in the quantity of money are correlated with changes in nominal national income and the price level. No one knows exactly how the next few months and quarters are going to pan out, but one certainty is that the “inflation vs. deflation” debate will intensify.

A handwritten signature in black ink, appearing to read "Tim Conger". The signature is fluid and cursive, with the first name "Tim" and the last name "Conger" clearly distinguishable.

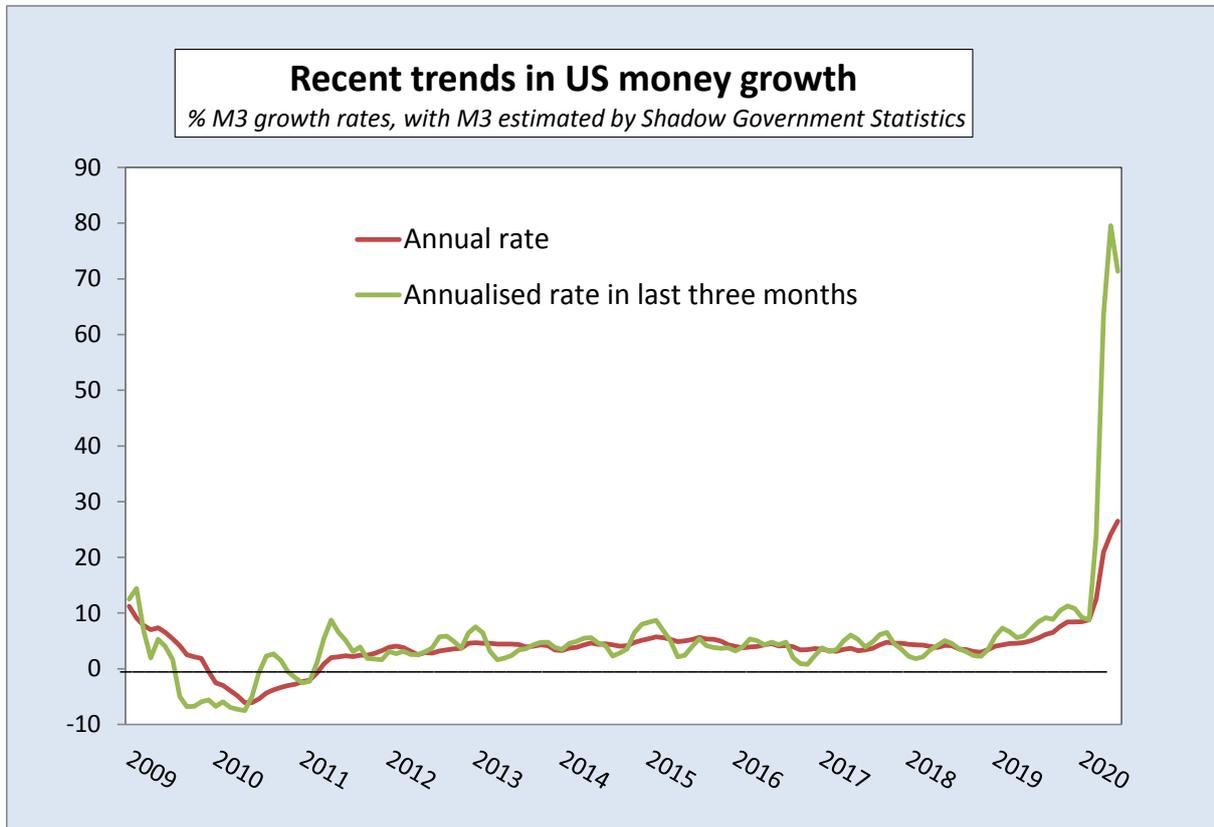
28th July, 2020



USA

	% annual/annualised growth rate:	
	M3	Nominal GDP
1960 – 2018	7.4	6.5
Eight years to 2018	4.0	4.0
Year to June 2020	26.7	n.a
Three months to June 2020 at annualised rate	71.4	n.a.

Sources: Shadow Government Statistics research service for M3 after 2006 and US Bureau of Economic Analysis for GDP



US money growth slows slightly, but remains extremely high

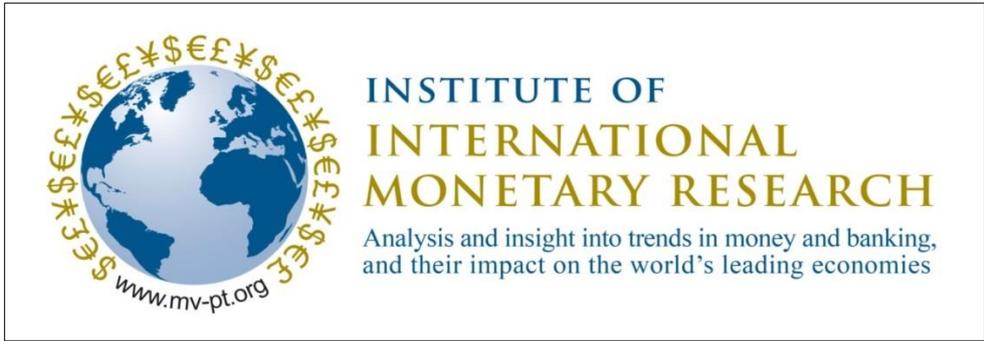
Summary: In the three months to June the rate of growth of US M3 broad money was 71.4%, down from 79.6% in the three months to May. This is still nonetheless an astonishing number in the world's most important economy. The annual rate of broad money growth rose from 24.1% in May to 26.7% a record in the USA's modern peacetime history, although one which may be surpassed in coming months. The M3 increase in June was \$678b. or 2.8%, the lowest reading since February, but still *five times* as high as the average increase in broad money in 2019. It is also worth remembering that the pace of the M3 increase in the 10 months to February 2020 was well already above the norm in recent years. (Note that our M3 data come from Shadow Government Statistics.)

The fiscal and monetary stimulus programmes designed to combat the effects of the coronavirus pandemic are likely to ensure that US broad money continues to grow at a rapid rate for the rest of the year. It does not appear, however, that the pace of money growth in the three months to May – which totalled over \$3,300b. (or 15.8%) – will be repeated in any subsequent three-month period in 2020 or 2021. Indeed, it may never be repeated. The last meeting of the Federal Open Markets Committee on 9th and 10th June did not result in any new initiatives. With the lockdown being eased, it is probable that no additional monetary stimulus will be announced at the next meeting on 28th and 29th July either. The Fed has, however, already committed itself to keep the US Fed funds rate at the historic low level of 0%-0.25% until 2022, while purchasing \$80b. in Treasuries and \$60b. in mortgage-backed securities every month for the foreseeable future. The asset purchases will add ½% each month to broad money.

The changes in bank deposits so far in July have been -0.4% (week to 1st July), +0.4% (8th July) and +0.2% (15th July), notably lower than the figures – typically of over +1% - reported in March and April. The slowdown in deposit growth is largely attributable, on the assets side of the balance sheet, to a dip in banks' cash reserves since May. All the same, the combined effects of the fiscal and monetary stimuli could well see broad money up by 1% per month for the rest of 2020. Pressure to tighten monetary policy or to curb fiscal stimulus is unlikely in a Presidential election year. Indeed, plans for another round of fiscal stimulus – with more so-called “stimulus checks” for households – is widely expected to be announced by Senate Republicans in the coming week. The talk is again of \$1,200 per household, but Democrats in the House of Representatives may want a different approach.

John Petley
21st July, 2020

	% annual growth rate:	
	M3	Nominal GDP
1960 – 2018	7.4	6.5
1960 – 1970	7.7	6.8
1971 – 1980	11.4	10.3
1981 – 1990	7.7	7.7
1991 - 2000	5.6	5.6
2001 - 2010	7.1	3.9
Eight years to 2018	4.0	4.0



China

	% annual/annualised growth rate:	
	M2	Nominal GDP
1991- 2018	19.2	15.1
2010 - 2018	13.6	11.2
Year to June 2020	11.4	n/a
Three months to June 2020 annualised rate	10.8	n/a

Sources: People’s Bank of China for M2 and Institute of International Monetary Research estimates



Broad money growth slows but remains buoyant

Summary: In the second quarter of 2020 China's M2 grew by 2.8% or at an annualised rate of 11.4%. This is a significant slowing after May's reading of 14.1%. It is also the lowest three-month-annualised number since February, when the authorities started a series of stimulatory measures to combat the effects of the coronavirus outbreak. The annual growth rate also fell from 11.0% in May to 10.8% in June. Broad money growth remains above the 8% - 9% band in which it stayed for much of 2018 and 2019, but May's figure may well prove to be the highest annualised quarterly growth figure for a while as March's exceptionally high reading drops out of the calculations.

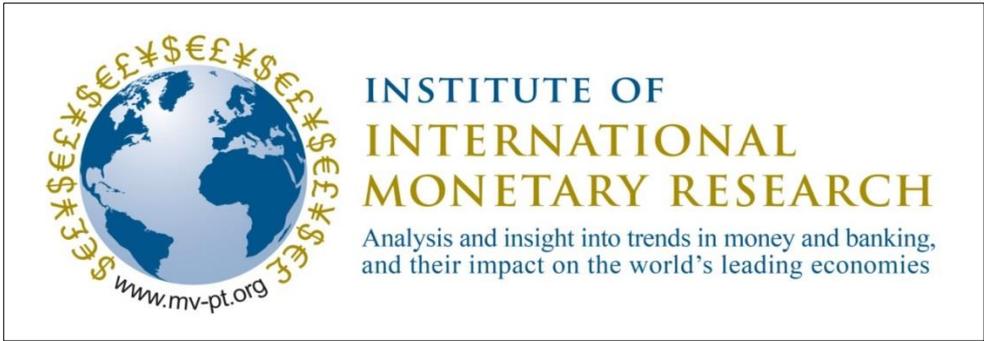
The Chinese authorities are less than transparent about their intentions for money growth. A major policy easing seemed to be under way in March and April, with state-owned banks directing more credit to basic industries. March and April also saw three cuts to banks' cash reserve ratios, a reduction of interest rates by 0.3%, the launch of a targeted special lending scheme and a cut to the interest rate on financial institutions' excess reserves. But no further initiatives have been announced subsequently. Arguably, a compelling reason for further monetary loosening is far from evident, with Chinese officialdom claiming that deaths from Covid-19 have stopped. Local lockdowns have been imposed in Beijing and Hebei in recent weeks, but the country gives the impression of returning to normal.

Annual growth in the stock of bank lending rose to 13.2% in May (the highest figure in over a year), and remained at this level in June. Demand for bank loans has been particularly strong from the manufacturing sector in the last quarter. Recently published figures show that China's GDP grew by 11.5% in the second quarter of the year following the sharp 10% contraction in the first quarter, resulting in an annual growth rate of 3.2% for Q2. Exports recorded a year-on-year increase in June, as global demand grows following the lifting of restrictions. The domestic market is still subdued, with retail sales down by 1.8% on June 2019. The inflation rate has remained at 2.4% -2.5% for the last two months. However, food inflation remains high because of the ongoing effects of African swine fever on pork prices and may be further exacerbated by flooding. The housing market is picking up, although transaction levels are still significantly down on pre-Covid 19 levels. The increase in house prices, however, continues to slow.

The money numbers suggest that China is returning to the path of steady growth after the disruption of the coronavirus pandemic, with seemingly few long-term problems. Concerns persist about unemployment, which may be higher than the official figures suggest, especially in rural areas. Tensions between the USA and China may affect trade between the two countries. The authoritarianism of Xi Jinping has been accompanied by a return to state planning, with direction from the centre, and renewed subsidization of inefficient basic industries. But macroeconomic policies have not been re-gearred to stimulus in the extraordinary fashion of the major developed nations.

*John Petley
16th July, 2020*

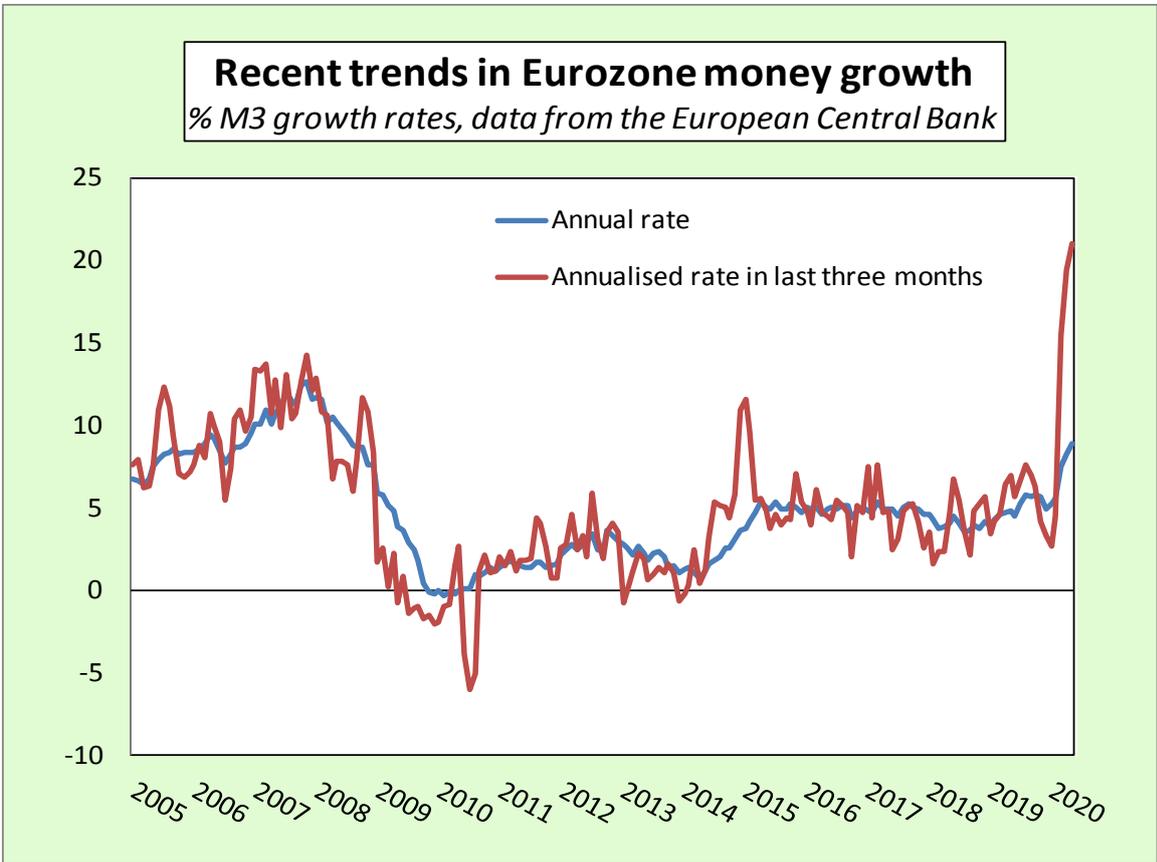
	% annual growth rate:	
	M2	Nominal GDP
1991 - 2000	24.5	18.4
2001 - 2010	18.5	15.2
Seven years to 2017	12.8	10.3



Eurozone/Euroland

	% annual/annualised growth rate:	
	M3	Nominal GDP
1996 – 2018	5.2	3.1
Eight years to 2018	3.7	2.5
Year to May 2020	8.9	n/a
Three months to May 2020 at annualised rate	21.0	n/a

Sources: European Central Bank and Institute of International Monetary Research estimates



Money growth rises further thanks to stimulus measures

Summary: In the three months to May 2020 annualised M3 broad money growth in the Eurozone rose to 21.0%, an advance on April's figure of 19.4%. Numbers like these are by far highest since the launch of the single currency. The annual growth rate rose from 8.2% in April to 8.9%. In May itself broad money grew by €161b.. This was higher than April's increase of €149b., but less than half March's record €328b. The big rises were due to the European Central Bank's purchases of assets – notably government bonds – on an enormous scale.

With March's figures dropping out of the calculations for quarterly data, broad money growth on a three-month annualised basis should be lower from June onwards. But ECB asset purchases are likely to keep money growth at an elevated level for some time. The ECB's Monetary Policy Committee met on 16th July, without announcing any new initiatives. At its previous meeting, on 4th June, it was decided to expand the pandemic emergency purchase programme (PEPP) by €600b., raising the total to €1,350b. This initiative had been launched in March and is set to continue until at least June 2021. The scale of the programme is a given, with it unaffected by how rapidly the coronavirus pandemic is brought under control. The ECB is not expecting a rapid recovery from the economic fallout caused by the virus, but the positive monetary policy response will help to heal the wounds from the coronavirus pandemic. The ECB's stimulus measures have been notably less vigorous than those in the USA and the money growth acceleration has been markedly less.

Media reports of sharp arguments between European Union governments about the planned €750b. fiscal stimulus reflect concern, particularly among the so-called "Frugal Four" (Austria, the Netherlands, Sweden and Denmark) that it represents a major step towards debt mutualisation as well as fiscal centralization. The Frugal Four wanted the money to be made available as loans (which would have to be repaid), not grants. In the package finally agreed, nearly half of it consisted of loans

The sharp increase in broad money growth since February has been helpful for the Eurozone's financial markets, which have been on a recovery path since April. The wider economy is only responding slowly at the moment, even though Covid-19 restrictions have been eased in all member states. Of the six nations to have suffered deflation since the start of the crisis, only Portugal has seen prices starting to rise. However, the 0.3% annual rise in consumer prices across the 19-member bloc in the year to June is higher than May's figure of 0.1%, and it needs to be remembered that these numbers reflect a tumble in energy prices. Economic activity is increasing, oil prices have picked up and supply shortages in some sectors may cause localised price rises. The high levels of money growth are likely to sustain asset markets and aggregate demand in the next few quarters, and that may feed into prices in the shops by the end of 2021. But the inflation damage is likely to be much lower than in the USA, as money growth has not reached the same levels.

John Petley
20th July, 2020

	% annual growth rate:	
	M3	Nominal GDP
1996 – 2018	5.2	3.1
1996 – 2000	4.6	4.1
2001 – 2010	6.8	3.1
Eight years to 2018	3.7	2.5



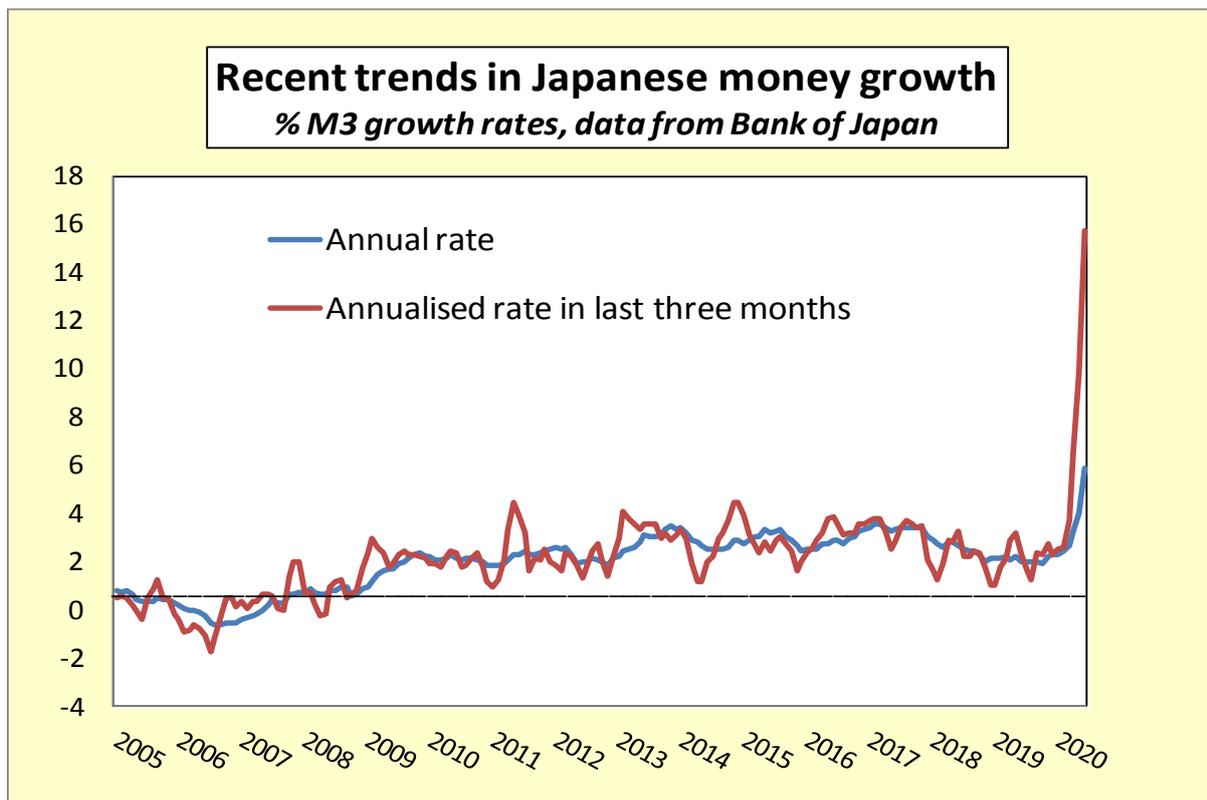
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and their impact on the world's leading economies

Japan

	% <i>annual/annualised growth rate:</i>	
	M3	Nominal GDP
1981- 2018	4.0	1.9
Eight years to 2018	2.8	0.6
Year to June 2020	5.9	n/a
Three months to June 2020 at annualised rate	15.7	n/a

Sources: Bank of Japan for M3 and IMF for GDP



Broad money growth accelerates further

Summary: May saw Japanese annualised quarterly M3 growth reaching an unprecedented high of 9.8%. June's reading was higher still. Annualised quarterly growth rose to 15.7%, remarkable by Japan's standards in the last 30 years. In June itself M3 grew by 244 trillion yen, equivalent to 80% of the increase for the entire year of 2019.

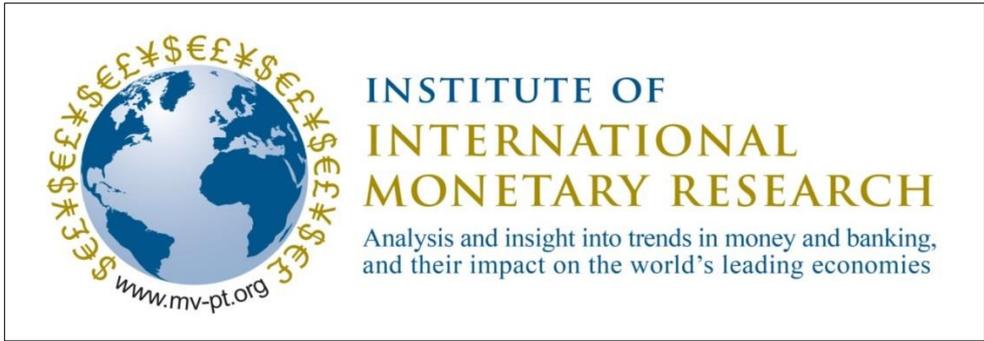
A remarkable upsurge in M3 growth has been driven by Japan's monetary and fiscal response to the virus. The fiscal response began in March, with a stimulus package announced amounting to 108.2 trillion yen (i.e., \$1,000b., roughly). Much of it was designed to protect jobs in small- and medium-sized enterprises. Further, on 17th April it was announced that every Japanese resident would receive a cash handout of 100,000 yen (about \$900). This scheme took a while to implement, with only 21% of households having received their money as of 8th June. But by June 24th the figure had risen to 64.7%. As the most recent money figures cover the period to the start rather than the end of June, money growth could rise even higher since each cash handout creates a new deposit (i.e., money). (The positive effect on money could however be neutralised by the sale of public debt to non-banks.)

The stimulatory measures may have contributed to the reversal of the plunge in the Nikkei 225 index in February and March. So far few other economic indicators have suggested that a recovery is under way. The stock of lending to the private sector by Japanese banks has increased significantly in the last two months, but largely due to companies affected by the virus needing cash to tide them over. The 6.2% annual growth rate of such lending in June was nonetheless the highest in over 20 years. The inflation rate held at 0.1% in June, while retail sales were still 12.3% lower in May than a year previous. The level of wages fell in May, while the unemployment rate rose to a three-year high of 2.9%. The export figures were particularly depressing, recording a 26% fall in the year to June.

In Japan no official lockdown was imposed. Most businesses have remained open throughout the year, despite a month-long state of emergency declared in April. The country has been less affected by Covid-19 than many other developed nations, with less than 1,000 deaths reported. The Bank of Japan's Monetary Policy Committee met on 15th July and made no new announcements of further initiatives. Its enhanced asset purchase scheme, along with the negative interest rates and yield curve control, will continue until the consumer price inflation target of 2% is reached. It is likely that this could happen by 2022 or even earlier in view of the recent dramatic rise in broad money growth. Indeed, if such strong money growth persists, inflation could well rise above 2% after many years of the BOJ failing to achieve this objective. The money numbers are likely to remain high by recent Japanese standards, although Japan is in this respect far behind the USA. A third quarter of GDP contraction looks likely when the figures for April-June 2020 are published, but Japan's economy should return to growth in the second half of the year.

*John Petley
17th July, 2020*

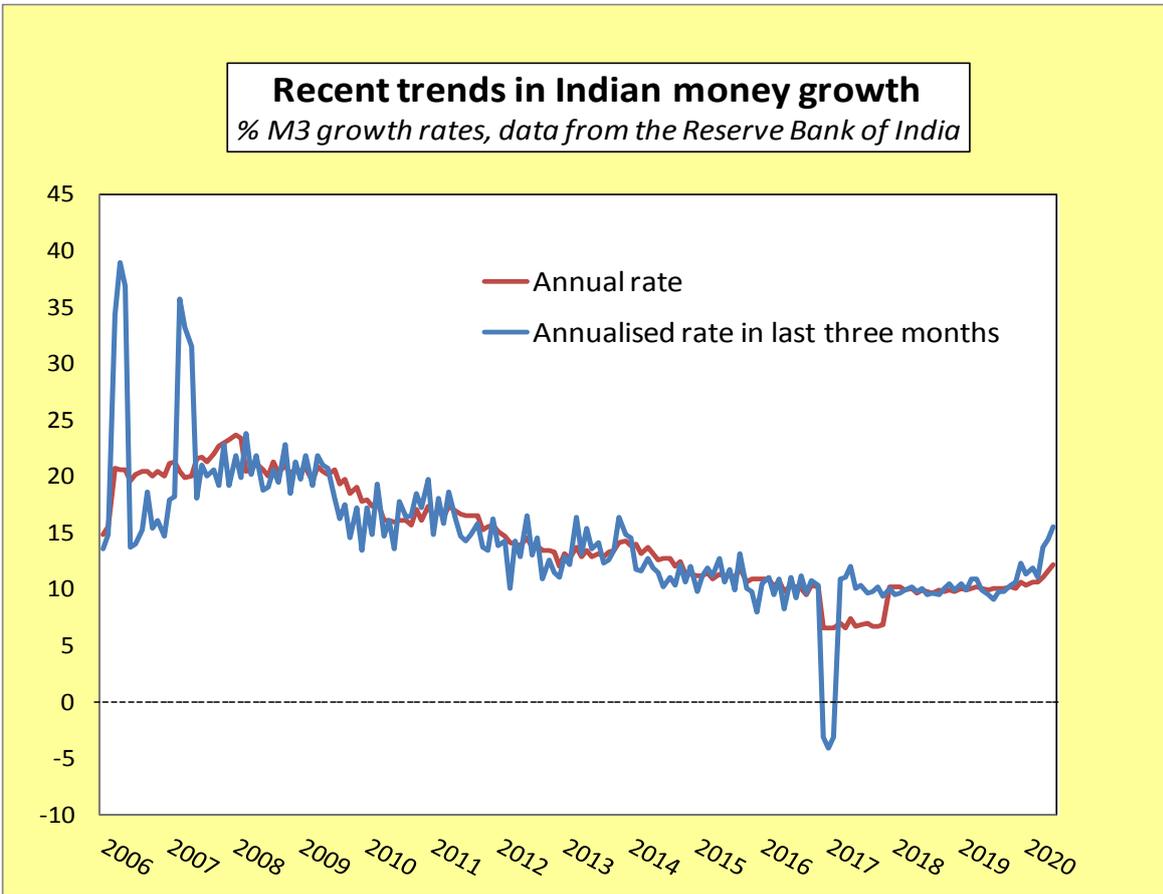
	% annual growth rate:	
	M3	Nominal GDP
1981 – 1990	9.2	4.6
1991 - 2000	2.5	1.1
2001 - 2010	1.1	0.8
Eight years to 2018	2.8	0.6



India

	% annual/annualised growth rate:	
	M3	Nominal GDP
1981- 2018	14.8	12.4
Eight years to 2018	11.3	11.8
Year to June 2020	12.1	n/a
Three months to June 2020 at annualised rate	15.5	n/a

Sources: Reserve Bank of India for M3 and IMF for GDP



Strong broad money growth continues

Summary: In the second quarter of 2020 India's seasonally adjusted M3 grew by 3.9% or at an annualised rate of 15.5%. This is the highest reading since September 2013. The annual growth rate also picked up, from 11.6% to 12.1%, a five-year high. As with many other countries, the government and central bank in India have responded to the coronavirus with a mixture of fiscal and monetary measures. These have pushed up money growth after a prolonged period of stability. Until March annual growth had remained within a narrow band – from 9.6% to 10.5% - for 28 consecutive months.

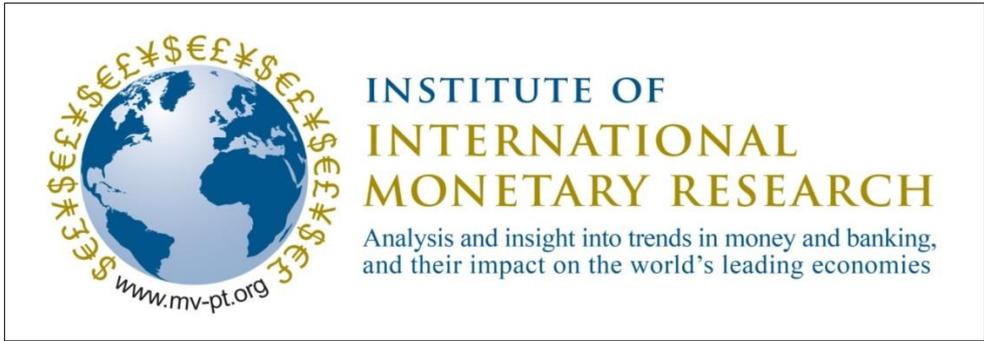
India continues to experience a high number of Covid-19 infections with no sign of a slowing in the rate. The death toll reached 30,000 on 24th July. After a very strict lockdown was imposed on 24th March, restrictions were gradually lifted from May onwards. As elsewhere, the authorities regarded the economic damage as being too great to continue with the lockdown. Businesses have re-opened, while the unemployment rate – which soared in the absence of a government-funded furlough scheme – has dropped. (June's reading of 11% is nevertheless significantly higher than the figures from before the lockdown.)

On 12th May Prime Minister Modi launched a special economic package worth \$280b, almost 10% of GDP, to support the agricultural sector and small businesses. With the future trajectory of the virus in India still unclear, some businesses remain cautious. Growth in lending by India's banks has been very modest. The most recent reading of 6.2% is only slightly higher than the 6.1% recorded at the start of the lockdown. The recent spate of cuts in base rates may not be over, but the effectiveness of these reductions may be limited due to the reluctance of India's commercial banks to pass them on to customers, perhaps out of a desire to bolster their reserves against bad loans. The authorities are concerned that the economic damage caused by the virus could hit "shadow banks" particularly hard. Indeed, on 1st July the Reserve Bank of India launched a "special purpose vehicle" to provide liquidity to the shadow banks, with facilities of \$370b. being made available. The RBI had earlier announced a six-month moratorium on the repayment of loans, which had deprived the shadow banks of liquidity. (These financial institutions are very dependent on the repayment of loans to finance new lending.)

It is not only the shadow banking sector which worries the authorities. On 13th July RBI governor Shaktikanta Das called for legislation to establish what he called a "resolution corporation" which would take over failed banks rather than compulsorily merging them with successful banks. While the details have yet to be worked out, his comments are an indication of the concern also felt about the frailty of parts of the commercial banking sector.

John Petley
17th July, 2020

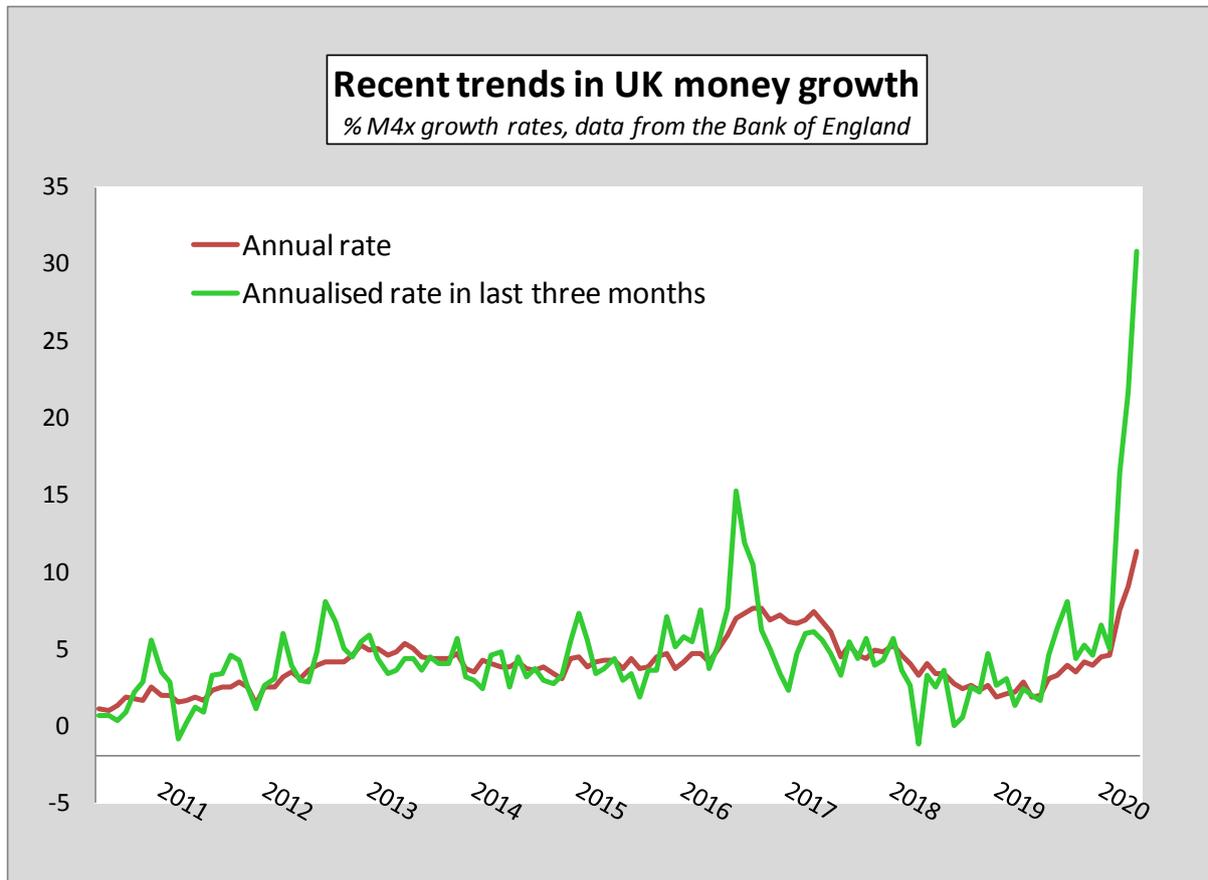
	% annual growth rate:	
	M3	Nominal GDP
1981 - 1990	17.1	15.5
1991 - 2000	17.4	14.0
2001 - 2010	17.3	14.8
Eight years to 2018	11.3	11.8



UK

	% annual/annualised growth rate:	
	M4x/M4 before 1997	Nominal GDP
1964 – 2017	9.8	8.2
Eight years to 2018	4.1	3.7
Year to May 2020	11.3	n/a
Three months to May 2020 at annualised rate	31.8	n/a

Sources: Bank of England and Office for National Statistics



Broad money growth increases further

Summary: In the three months to May 2020 UK M4x grew at an annualised rate of 31.8%, a further substantial increase on April's reading of 21.7%. Indeed, the 31.8% figure is the highest by a considerable margin since the Bank of England introduced M4x as the most reliable money measure in September 2009. In May itself the quantity of money rose by over £52b., over seven times the average reading for 2019, although the figure was less than March's record £68b. The annual growth rate rose from 9.0% to 11.3%, another peak for the period since September 2009.

These remarkable figures, which stem from official measures to counteract the output losses caused by the coronavirus-related lockdown, might have caused more adverse comment, given the sorry history of the Bank of England's failure to restrain money growth in the Heath-Barber boom of the early 1970s and the Lawson boom of the late 1980s. However, it is too early to be drawing parallels with those episodes. As of now, extremely high money growth has lasted only four months. However, double-digit annual broad money growth was also seen in 2006 and early 2007, ahead of the calamitous closure of the wholesale inter-bank market from July 2007, and then the Great Recession in 2008 and 2009. Senior Bank of England officials show little awareness of the relationships between money and macroeconomic outcomes. It is plausible that mistakes may be made on this occasion as in earlier periods of turbulence, even if their precise nature is not yet clear.

High levels of M3 growth are likely to continue for the rest of the year, because the government's large budget deficit (with net borrowing expected to exceed £300b. in the current fiscal year) needing to be financed. Despite protestations from the Bank's top brass that they are not engaged in monetary financing of the budget deficit, every sign is being offered that the Bank of England and/or the commercial banking system will be acquiring extra claims on the state. The Bank's purchases of corporate bonds add to the quantity of money. Given the inflation risks, it is interesting that Andrew Haldane – the Bank's chief economist – was opposed to the Monetary Policy Committee's June decision to increase the asset purchase scheme by £100b.

Money growth has also been boosted by the huge expansion of government borrowing, which was originally intended (in the Budget on 12th March) to be £54.8b. in 2020/21, but which hit £127.9b. in the first quarter alone, more than double the amount borrowed in the entire 2019/20 fiscal year. This borrowing is likely to be financed largely by issue of short-dated gilts and Treasury bills, which will be taken up mostly by the banking system. These could amount to at least £150b. if overall borrowing reaches double the Q2 figure by March 2021. That will add about 7% to the quantity of money.

Tim Congdon and John Petley
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	% annual growth rate:	
	M4/M4x	Nominal GDP
1964- 2017	9.8	8.2
1991 – 2000	6.4	5.0
2001 – 2010	6.5	3.9
Eight years to 2018	4.1	3.7